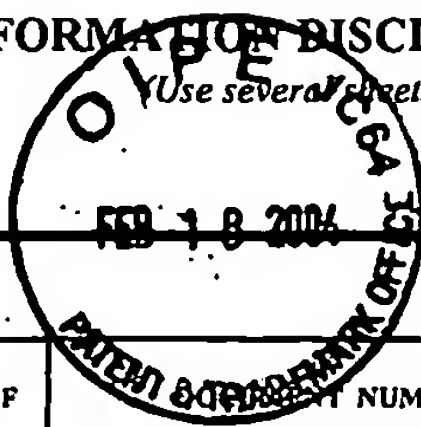


INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)



Docket Number (Optional)

850865.90015

Application Number

10/620,520

Applicant(s)

BEAUDOIN, A.L. et al.

Filing Date

July 16, 2003

Group Art Unit

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
TM	1.	U.S. 6,312,662 B1	11/06/2001	Erion et al.			

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TM	2.	Burnstock, G., Campbell, G., Bennett, M., and Holman, M.E. Innervation of the Guinea-Pig Taenia Coli: are there intrinsic inhibitory nerves which are distinct from sympathetic nerves? Int. J. Neuropharmacol 3: 163-166, 1964.
TM	3.	Burnstock, G. Evolution of the autonomic innervation of visceral and cardiovascular systems in vertebrates. Pharmacol. Rev. 21 (4): 247-324, 1969.

EXAMINER

/Traviss McIntosh III/ (05/27/2006)

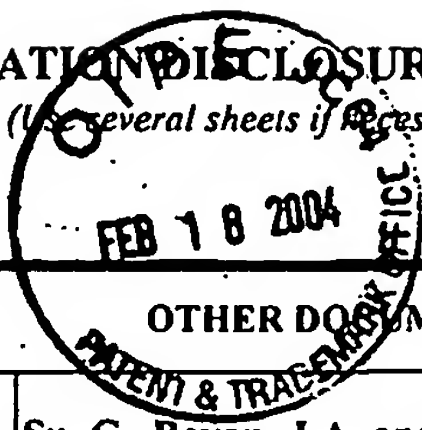
DATE CONSIDERED

05/27/2006

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)



Docket Number (Optional)

850865.90015

Application Number

10/620,520

Applicant(s)

BEAUDOIN, A.L. et al.

Filing Date

July 16, 2003

Group Art Unit

*EXAMINER
INITIAL

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TM

4.

Su, C., Bevan, J.A. and Burnstock, G. [3H] adenosine triphosphate: release during stimulation of enteric nerves. Science 173(994): 336-338, 1971.

5.

Langer, S.Z., and Pinto, J.E.B. Possible involvement of a transmitter different from norepinephrine in the residual responses to nerves stimulation of the cat nictitating membrane after pretreatment with reserpine. J. Pharmacol. Exp. Ther. 196(3): 697-713, 1976.

6.

Burnstock, G. Purinergic receptor. J. Theor. Biol. 62 (2): 491-503, 1976.

7.

Von Kugelsen, I., and Starke, K. Noradrenaline-ATP co-transmission in the sympathetic nervous system. Trends Pharmacol. Sci. 12(9): 319-324, 1991.

8.

Westfall, D.P., Sedaa, K.O., Shinozuka, K., Bjur, R.A., and Buxton, I.L.O. ATP as a Cotransmitter Ann. NY Acad. Sci. 603: 300-310, 1990.

9.

Burnstock, G. Neural nomenclature. Nature 229(5282): 282-283, 1971.

10.

Burnstock, G. A basis for distinguishing two types of purinergic receptors. In: Cell membrane receptors for drugs and hormones: A multidisciplinary approach. (Eds. R.W. Straub and L. Bolis), Raven press, New York. Pp. 107-118, 1978.

11.

Fredholm, B.B., Abbracchio, M.P., Burnstock, G., Daly, J.W., Harden, T.K., Jacobson, K.A., Leff, P., and Williams, M. Nomenclature and classification of purinoceptors. Pharmacol. Rev. 46(2): 143-156, 1994.

12.

Gendron et al. ATP diphosphohydrolase inhibitors: novel perspectives. Poster Abstract, p. 327 from conference Ecto-ATPases and Related Ectonucleotidases (June 1999).

13.

Juul, B., Plesner, L., and Aalkjaer, C. Effects of ATP and related nucleotides on the tone of isolated rat mesenteric resistance arteries. J. Pharmacol. Exp. Therap. 264: 1234-1240, 1993.

14.

Motte, S., Communi, D., Piroton, S., Boeynaems, J.M. Involvement of multiple receptors in the actions of extracellular ATP: the examples of vascular endothelial cells. Int. J. Biochem. Cell Biol. 27: 1-7, 1995.

TM

15.

Rongen, G.A., Floras, J.S., Lender, J.W.M., Thien, T., and Smits, P. Cardiovascular pharmacology of purines. Clin. Sci. 92: 13-24, 1997.

EXAMINER

/Traviss McIntosh III/ (05/27/2006)

DATE CONSIDERED

05/27/2006

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>		Docket Number (Optional) 850865.90015	Application Number 10/620,520
		Applicant(s) BEAUDOIN, A.L. et al.	
		Filing Date July 16, 2003	Group Art Unit

*EXAMINER INITIAL	OTHER DOCUMENTS	(Including Abstract, Title, Date, Pertinent Pages, Etc.)
TM	16.	Dubyak, G.R., and El-Moatassim, C. Signal transduction via P2-purinergic receptors for extracellular ATP and other nucleotides. Am. J. Physiol. 265: C577-C606, 1993.
↓	17.	Johnson, C.R., and Hourahi, S.M.O. Contractile effects of uridine 5'-triphosphate in the rat duodenum. Br. J. Pharmacol. 113(4): 1191-1196, 1994.
↓	18.	Pennanen, M.F., Bass, B.L., Dziki, A.J., and Harmon, J.W. Adenosine differential effect on blood flow to subregions of the upper gastrointestinal tract. J. Surg. Res. 56(5): 461-465, 1994.
↓	19.	Strohmeier, G.R., Reppert, S.M., Lencer, W.I., and Madana, J.L. The A2b adenosine receptor mediated cAMP responses to adenosine receptor agonists in human intestinal epithelia. J. Biol. Chem. 270(5): 2387-2394, 1995.
↓	20.	Hancock, D.L., and Coupar, I.M. Functional characterization of the adenosine receptor mediating inhibition of peristalsis in the rat jejunum. Br. J. Pharmacol 115(5): 739-744, 1995.
↓	21.	Sarna, S.K. Gastrointestinal longitudinal muscle contractions. Am. J. Physiol. 265(1pt1): G156-G164, 1993.
↓	22.	Baricordi, O.R., Ferrari, D., Melchiorri, L., Chiozzi, P., Hanau, S., Chiari, E., Rubini, M., and Di Virgilio, F. An ATP-activated channel is involved in mitogenic stimulation of human T lymphocytes. Blood 87(2): 682-690, 1996.
↓	23.	Di Virgilio, F. The P2Z purinoceptor: an intriguing role in immunity, inflammation and cell death. Immunol. Today 16(11): 524-528, 1995.
↓	24.	Ventura, M.A., and Thomopoulos, P. ADP and ATP activate distinct signaling pathways in human promonocytic U-937 cells differentiated with 1,25-dihydroxy-vitamin D3. Mol. Pharmacol 47: 104-114, 1995.
↓	25.	Biffen, M., and Alexander, D.R. Mobilization of intracellular Ca ²⁺ by adenine nucleotides in human T-leukaemia cells: evidence for ADP-specific and P2y-purinergic receptors. Biochem. J. 304:769-774, 1994.
↓	26.	Apasov, S., Koshiba, M., Redegeld, F., and Sitokovsky, M.V. Role of extracellular ATP and P1 and P2 classes of purinergic receptors in T-cell development and cytotoxic T lymphocyte effector functions. Immunol. Rev. 146: 5-19, 1995.
TM	27.	Hedge, S.S., Mandel, D.A., Wilford, M.R., Briaud, S., Ford, A.P.D.W., and Eglen, R.M. Evidence for purinergic neurotransmission in the urinary bladder of pithed rats. Eur. J. Pharmacol. 349(1): 75-82, 1998.

EXAMINER /Traviss McIntosh III/ (05/27/2006)	DATE CONSIDERED 05/27/2006
--	----------------------------

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>		Docket Number (Optional) 850865.90015	Application Number 10/620,520
		Applicant(s) BEAUDOIN, A.L. et al.	
		Filing Date July 16, 2003	Group Art Unit

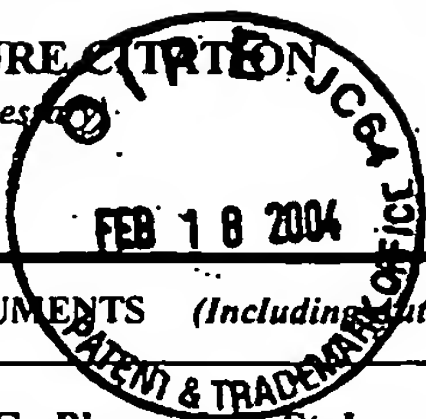
EXAMINER INITIAL	OTHER DOCUMENTS	(Including Author, Title, Date, Pertinent Pages, Etc.)
TM	28.	Dunwiddie, T.V., Abbracchio, M.P., Bischofberger, N., Brundage, J.M., Buell, G., Collo, G., Corsi, C., Diao, L., Kawashima, E., Jacobson, K.A., Latini, S., Lin, R.C.S., North, R.A., Pazzagli, M., Pedata, F., Pepeu, G.C., Proctor, W.R., Rassendren, F., Surprenant, A., and Cattabeni, F. Purinoceptors in the central nervous system. <i>Drug Dev. Res.</i> 39(3-4): 361-370, 1996.
TM	29.	Burnstock, G., and Wood, J.N. Purinergic receptors: Their role in nociception and primary afferent neurotransmission. <i>Curr. Opin. in Neurobiol.</i> 6(4): 526-532, 1996.
TM	30.	Von Kugelgen, I. Purinoceptors modulating the release of noradrenaline. <i>J. Autonomic. Pharmacol.</i> 14(1): 11-12, 1994.
TM	31.	Beaudoin, A.R., Sévigny, J., and Picher, M. ATP diphosphohydrolases, apyrases and nucleotide phosphohydrolases: biochemical properties and functions. In: <i>Biomembrane</i> , vol. 5; Lee, A.G., Ed.; Greenwich, CT: JAI, pp. 369-401, 1996.
No Date	32.	P. 1072 Sigma-Aldrich catalogue "Bioactive Peptides".
TM	33.	Beaudoin, A.R., Grondin, G., Enjyoji, K., Robson, S.C., Sévigny, J., Fischer, B., and Gendron, F.-P. Physiological role of NTPDases (ATP diphosphohydrolases) in mammals. Proceeding of the 2nd International Workshop on ecto-ATPase and related nucleotidases. Diepenbeek, Belgium, 14-18 June 1999. Vanduffel L., and Lemmens R., Eds. Shaker Publishing B.V., The Netherlands; pp. 125-135, 2000.
TM	34.	Plesner, L. Ecto-ATPases: identities and functions. <i>Int. Rev. Cytol.</i> 158: 141-214, 1995.
TM	35.	Vlajkovic, S.M., Thorne, P.R., Hously, G.D., Munoz, D.J.B., and Kendrick, I.S. Ecto-nucleotidases terminate purinergic signalling in the cochlear endolymphatic compartment. <i>Neuroreport</i> 9: 1559-1565, 1998.
TM	36.	Zimmermann, H. 5'-Nucleotidase: molecular structure and functional aspects. <i>Biochem. J.</i> 285: 345-365, 1992.
TM	37.	Laliberté, J.-F. and Beaudoin A.R. Sequential hydrolysis of the gamma- and beta-phosphate groups of ATP by the ATP diphosphohydrolase from pig pancreas. <i>Biochim. Biophys. Acta</i> 742(1):9-15, 1983.
TM	38.	Côté, Y.P., Pavate C.T. and Beaudoin A.R. The control of nucleotides in blood vessels: Role of the ATP diphosphohydrolase (Apyrase). <i>Curr. Top. Pharmacol.</i> 1:83-92, 1992.
TM	39.	Sévigny J., Levesque F.P., Grondin G. and Beaudoin A.R. Purification of the blood vessel ATP diphosphohydrolase, identification and localization by immunological techniques. <i>Biochim. Biophys. Acta</i> 1334: 73-88, 1997.

EXAMINER /Traviss McIntosh III/ (05/27/2006)	DATE CONSIDERED 05/27/2006
--	----------------------------

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE

(Use several sheets if necessary)



Docket Number (Optional)

850865.90015

Application Number

10/620,520

Applicant(s)

BEAUDOIN, A.L. et al.

Filing Date

July 16, 2003

Group Art Unit

*EXAMINER
INITIAL

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TM

40.

LeBel D., Poirier G.G., Phaneuf, S., St-Jean P., Laliberté J.-F. and Beaudoin A.R. Characterization and purification of a calcium sensitive ATP diphosphohydrolase from the pig pancreas. J. Biol. Chem. 255: 1227-1233, 1980.

41.

Sévigny, J., Côté, Y.P. and Beaudoin, A.R. Purification of pancreas type I ATP diphosphohydrolase and identification by affinity labelling with 5'-p-fluorosulfonylbenzoyl adenosine ATP analog. Biochem J. 312: 351-356, 1995.

42.

Christoforidis, S., Papamarcaki, T., Galaris, D., Kellner, R. and Tsolas, O. Purification and properties of human placental ATP diphosphohydrolase. Eur. J. Biochem. 234: 66-74, 1995.

43.

Kaczmarek, E., Koziack, K., Sévigny, J., Siegel, J.B., Anrather, J., Beaudoin, A.R., Back, F.H., Robson, S.C. Identification and characterization of CD39/vascular ATP diphosphohydrolase. J. Biol. Chem. 271: 33116-33122, 1996.

44.

Maliszewski, C.R., Delespesse, G.J.T., Schoenborn, M.A., Armitage, R.J., Fanslow, W.C., Nakajima, T., Baker, E., Sutherland, G.R., Poindexter, K., Birks, C., Alpert, A., Friend, D., Gimpel, S.D., Gayle III, R.B. The CD39 lymphoid cell activation antigen: Molecular cloning and structural characterization. J. Immunol. 153: 3574-3583, 1994.

45.

Wang, T.-F., Guldotti, G. CD39 is an ecto-(Ca²⁺, Mg²⁺)-apyrase. J. Biol. Chem. 271: 9898-9901, 1996.

46.

Barcellos, C.K., Schetinger M.R.C., Battastini A.M.O., Silva L.B., Dias R.D., Sarkis J.J.F. Inhibitory effect of cadmium acetate on synaptosomal ATP diphosphohydrolase (EC 3.6.1.5; apyrase) from adult rat cerebral cortex. Braz. J. Med and Biol. Res. 27(5): 1111-1115, 1994.

47.

Côté, Y.P., Ouellet, S., and Beaudoin, A.R. Kinetic properties of type-II ATP diphosphohydrolase from the tunica media of the bovine aorta. Biochim. Biophys. Acta 1160(3): 246-250, 1992.

48.

Picher, M., Sévigny, J., D'Orléans-Juste, P., Beaudoin A.R. Hydrolysis of P2-purinoceptor agonists by a purified ectonucleotidase from the bovine aorta, the ATP diphosphohydrolase. Biochem. Pharmacol. 51: 1453-1460, 1996.

49.

Westfall, T.D., Kennedy, C., and Sneddon, P. The ecto-ATPase inhibitors ARL 67156 enhances parasympathetic neurotransmission in the guinea-pig urinary bladder. Eur. J. Pharmacol. 329(2-3): 169-173, 1997.

50.

Crack, B.E., Pollard, C.E., Beukers, M.W., Roberts, S.M., Hunt, S.F., Ingall, A.H., McKechnie, K.C.W., Ijzerman, A.P., and Leff, P. Pharmacological and biochemical analysis of FPL 67156, a novel, selective inhibitor of ecto-ATPase. Br. J. Pharmacol. 114(2): 475-481, 1995.

TM

51.

Chen, B.C., Lee, C.-M. and Lin W.-W. Inhibition of ecto-ATPase by PPADS, suramin and reactive blue in endothelial cells, C-6 glioma cells and RAW 264.7 macrophages. Br. J. Pharmacol. 119(8): 1628-1634, 1996.

EXAMINER

/Traviss McIntosh III/ (05/27/2006)

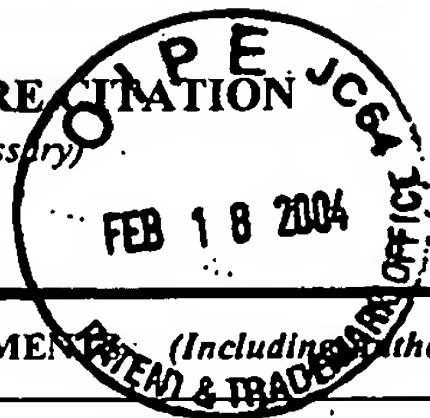
DATE CONSIDERED

05/27/2006

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)



Docket Number (Optional)

850865.90015

Application Number

10/620,520

Applicant(s)

BEAUDOIN, A.L. et al.

Filing Date

July 16, 2003

Group Art Unit

*EXAMINER
INITIAL

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TM

52.

Kennedy, C., Westfall, T.D., and Sneddon, P. Modulation of purinergic neurotransmission by ecto-ATPase. Sem. Neurosci. 8(4): 195-199, 1996.

53.

Fischer, B., Chulkin, A., Boyer, J.L., Harden, K.T., Gendron, F.-P., Beaudoin, A.R., Chapal, J., Hillaire-Buys, D., Petit, P. 2-thioether 5'-O-(1-thiotriphosphate) adenosine derivatives as new insulin secretagogues acting through P2Y-receptors. J. Med. Chem. 42: 3636-3646, 1999.

54.

Bültmann, R., Wittenburg, H., Pause, B., Kurz, G., Nickel, P., and Starke, K. P2-purinoceptors antagonists; III. Blockade of P2-purinoceptor subtypes and ecto-nucleotidases by compounds related to suramin. Naunyn-Schmiedeberg's Arch. Pharmacol. 354: 498-504, 1996.

55.

Tuluc, F., Bültmann, R., Glänzel, M., Wilhelm Frahm, A., and Starke, K. P2-receptor antagonists: IV. Blockade of P2 receptor subtypes and ecto-nucleotidases by compounds related to reactive blue 2. Naunyn-Schmiedeberg's Arch. Pharmacol. 357: 111-120, 1998.

56.

Bültmann, R., and Starke, K. Reactive red 2: a P2Y-selective purinoceptor antagonist and an inhibitor of ecto-nucleotidase. Naunyn-Schmiedeberg's Arch. Pharmacol. 352: 477-482, 1995.

57.

Wittenburg, H., Bültmann, R., Pause, B., Ganter, C., Kurz, G., and Starke, K. P2-purinoceptor antagonists: II. Blockade of P2-purinoceptor subtypes and ecto-nucleotidases by compounds related to Evans Blue and trypan blue. Naunyn-Schmiedeberg's Arch. Pharmacol. 354: 491-497, 1996.

58.

Bültmann, R., Pause, B., Wittenburg, H., Kurz, G., and Starke, K. P2-purinoceptor antagonists: I. Blockade of P2-purinoceptor subtypes and ecto-nucleotidases by small aromatic isothiocyanato-sulphonates. Naunyn-Schmiedeberg's Arch. Pharmacol. 354: 481-490, 1996.

59.

Bonan, C.D., Battastini, A.M.O., Schetinger, M.R.C., Moreira, C.M., Frassetto, S.S., Dias, R.D., and Sarkis, J.J.F. Effects of 9-amino-1,2,3,4-tetrahydroacridine (THA) on ATP diphosphohydrolase (EC 3.6.1.5) and 5'-nucleotidases (EC 3.1.3.5) from rat brain synaptosomes. Gen. Pharmac. 28(5): 761-766, 1997.

60.

Gendron, F.-P., Halbfinger E., Fischer B., Duval M., D'Orleans-Juste P. and Beaudoin, A.R. Novel inhibitors of nucleoside triphosphate diphosphohydrolases: Chemical Synthesis and Biochemical and Pharmacological Characterizations. J. Med.Chem 43(11): 2239-2244, 2000.

61.

Fischer, B., Boyer, J.L., Hoyle, C.H.V., Ziganshin, A.U., Brizzolara, A.L., Knight, G.E., Zimmet, J., Burnstock, G., Harden, T.K. and Jacobson, K.A. Identification of potent, selective P2Y-purinoceptor agonists: structure-activity relationships for 2-thioether derivatives of adenosine 5'-triphosphate. J. Med. Chem. 36: 3937-3946, 1993.

62.

Baykov A.A., Evtushenko O.A. and Avaeve S.M. A malachite green procedure for orthophosphate determination and its use in alkaline phosphatase-based enzyme immunoassay. Anal Biochem. 171: 266-270, 1988.

TM

63.

Bradord M.M. A rapid and sensitive method for the quantification of microgram quantities of protein utilising the principle of protein-dye binding. Anal. Biochem. 72: 248-254, 1976.

EXAMINER

/Traviss McIntosh III/ (05/27/2006)

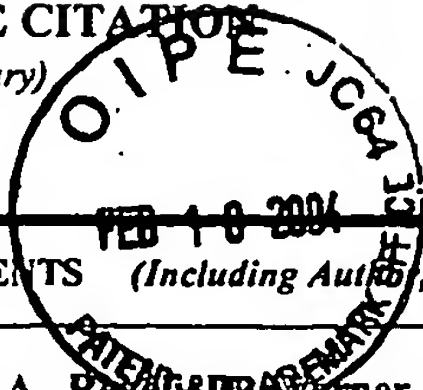
DATE CONSIDERED

05/27/2006

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)



Docket Number (Optional)

850865.90015

Application Number

10/620,520

Applicant(s)

BEAUDOIN, A.L. et al.

Filing Date

July 16, 2003

Group Art Unit

*EXAMINER
INITIAL

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TM

64.

Berthiaume, N., Claing, A., Regard, D., Warner, T.D., D'Orléans-Juste, P. Characterization of receptors for kinins and neurokinins in the arterial and venous mesenteric vasculatures of the guinea-pig. Br. J. Pharmacol. 115: 1319-1325, 1995.

65.

Halbfinger, E., Major, D.T., Ritzmann, M., Uhl, J., Reiser, G., Boyer, J.L., Harden, K.T., Fischer, B. Molecular recognition of modified adenine nucleotides by the P2Y1-receptor. Part I. A synthetic, biochemical, and NMR approach. J. Med. Chem. 42: 5325-5337, 1999.

66.

Major, D.T., Halbfinger, E. and Fischer, B. Molecular recognition of modified adenine nucleotides by the P2Y1-receptor. II. A computational approach. J. Med. Chem 42: 5338-5347, 1999.

67.

Van Rhee, A.M., Fischer, B., Van Galen, P.J.M., Jacobson, K.A. Modelling the P2Y purinoceptor using rhodopsin as template. Drug Design and Discovery 13: 133-154, 1995.

68.

Hirst, G.D.S., Jobling, P. The distribution of gamma-adrenoceptors and P2 purinoceptors in mesenteric arteries and veins of the guinea-pig. Br. J. Pharmacol. 96: 993-999, 1989.

69.

Onaka, U., Fujii, K., Abe, I., Fujishima, M. Enhancement by exogenous and locally generated angiotensin II of purinergic neurotransmission via angiotensin type 1 receptor in the guinea-pig isolated mesenteric artery. Br. J. Pharmacol. 122: 942-948, 1997.

70.

Fujii, K. Evidence for adenosine triphosphate as an excitatory transmitter in guinea-pig, rabbit and pig urinary bladder. J. Physiol. 404: 39-52, 1988.

TM

71.

Ishikawa, S. Actions of ATP and alpha, beta-methylene ATP on neuromuscular transmission and smooth muscle membrane of the rabbit and guinea-pig mesenteric arteries. Br. J. Pharmacol. 86: 777-787, 1985.

EXAMINER

/Traviss McIntosh III/ (05/27/2006)

DATE CONSIDERED

05/27/2006

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.